ASN (RDA)
Chief Systems Engineer

Naval Probability of Program Success (PoPS)

Background and How Being Used

10 Nov 2009

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Outline

- **Background**
  - **DON Acquisition Governance**
  - **Core and PoPS (Probability of Program Success)**
- **PoPS v1.0**
  - **Structure**
  - **Products and Tools**
    - **Guidebook, Handbooks, Visuals, Templates**
- **How used**
  - **Individual Program**
  - **Portfolio of Programs**
  - **Identification of Systemic Issues**
- **Gate Review Path Forward**

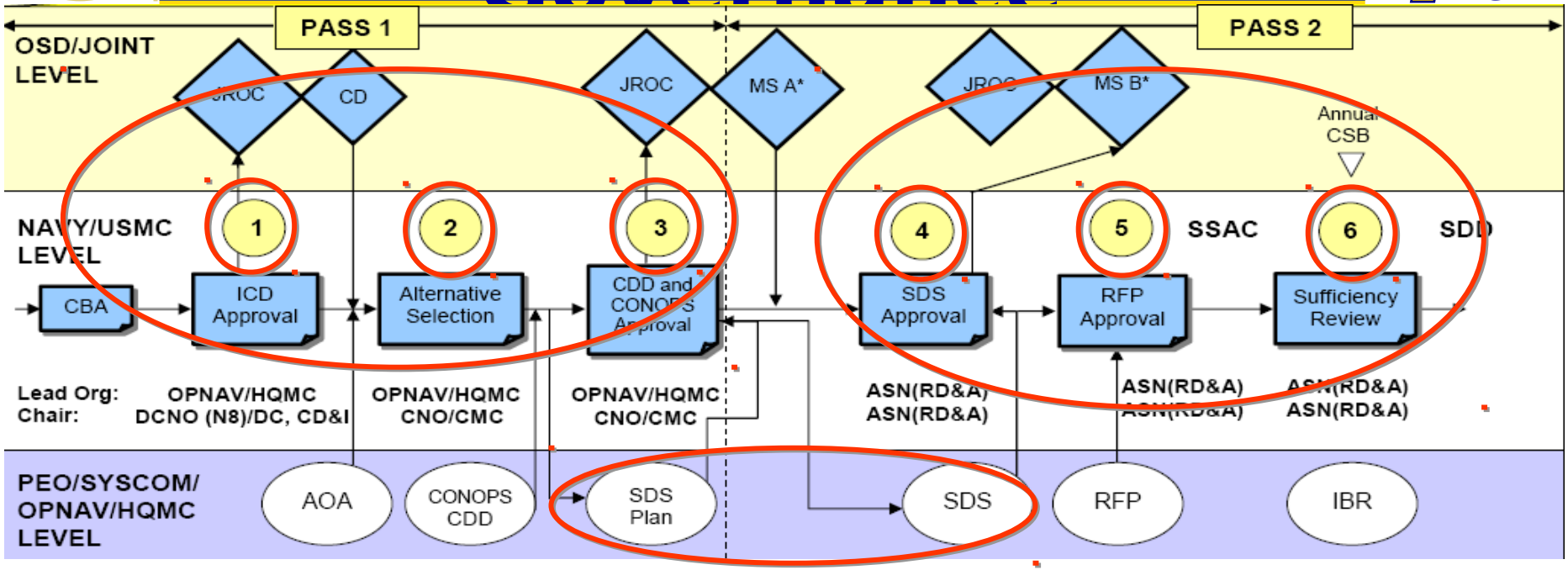
DoN Acquisition Governance

RDA CHIEF SYSTEMS ENGINEER

- The Secretary of the Navy
  - With CNO, CMC, ASNRDA, SYSCOM Commanders
  - Comprehensive review of the Acquisition process
  - Challenges in Program Planning and Execution.
- Enhance the Acquisition Governance process
  - Inject Early Senior Leadership
  - Continuous Engagement and Transparency
- Increase discipline during each phase of Program Maturity
- Codified by SECNAVNOTE on 26 February 2008

"Two Pass / Six Gate"

DoN Acquisition Governance



- First Pass - Requirements Establishment
- Second Pass - Acquisition Execution
- System Design Specification
  - Capability and Performance Expectations
- Gates - Reviews to Assess Readiness to Proceed
  - Program Health Assessment at each Gate

Gate Review Core and PoPS

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Gates	Membership	Input Criteria	Goals/Exit Criteria	Briefing Content
1 Validate ICD & AoA Guidance, Authorize proceeding to CD Briefer: RO, prospective PM, and AoA Director	Chair: DCNO (N8)/DC CD&I Principal: N1/M&RA, N2/Intel, N3/N5/DC PP&O, N4/I&L, N6/DirC4/CIO, DC P&R, ASN(RD&A), N00N, PDASN, WE Lead &/or USFF/MARFOR, SYSCOM - as required: PEO, CNR, DON CIO, DC Avn Advisory: ASN(RD&A)CHSENG, DASN, N80, N81, N82, N81D, N091, USFF(N8), HQMC(CL, PA&E), OGC, ASN(FM&C)FMB, Resource Sponsor, DirNIPO, OPPA	1. Objectives of Top Leadership Teams/CDR's Intent 2. Completed CBA 3. Completed Service review of ICD 4. Identification of mutually shared needs with foreign countries	1. Approval for ICD entry into Joint review, or endorsement of ICD enroute to CNO/CMC for signature 2. Validation of AoA guidance, assumptions, & timeline and authorization for submittal to Director, PA&E (ACAT I & IA); or Approval of AoA guidance, assumptions, & timeline (selected ACAT II) 3. Approval to proceed to CD 4. Determination of next Gate review	1. ICD description 2. AoA proposed guidance including assumptions, cost constraints, international opportunities & lifecycle considerations 3. Doctrine, organization, training, materiel, leadership & education, personnel, & facilities (DOTMLPF) change recommendation (DCR) inputs 4. Program Health (funding, risk, staffing sufficiency, commonality, maintainability, supportability, standards)

"Core" = Detailed information germane to the Gate Decision

"PoPS" = Holistic view of overall program health and

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PoPS Implementation

- **19 Jan 2008 PDASN Memo - Interim use of Air Force "PoPS Spreadsheet Operations Guide" to Assess Program Health During Gate Reviews**

- **6 October 2008 PDASN Memo - Naval PoPS Guidance**
  - **Directed the use of the methods and tools described in the Naval PoPS Guidebook and supplemental Handbooks**
    - **Required for all DON Gate Reviews (ACATs I & II)**
    - **Shall serve as the standard DON method of representing the health of <u>all</u> ACAT Programs and any other programs subject to the DON Acquisition process**
  - **Consistent means to assess program health**

Naval PoPS v1.0 Leveraged Air Force PoPS

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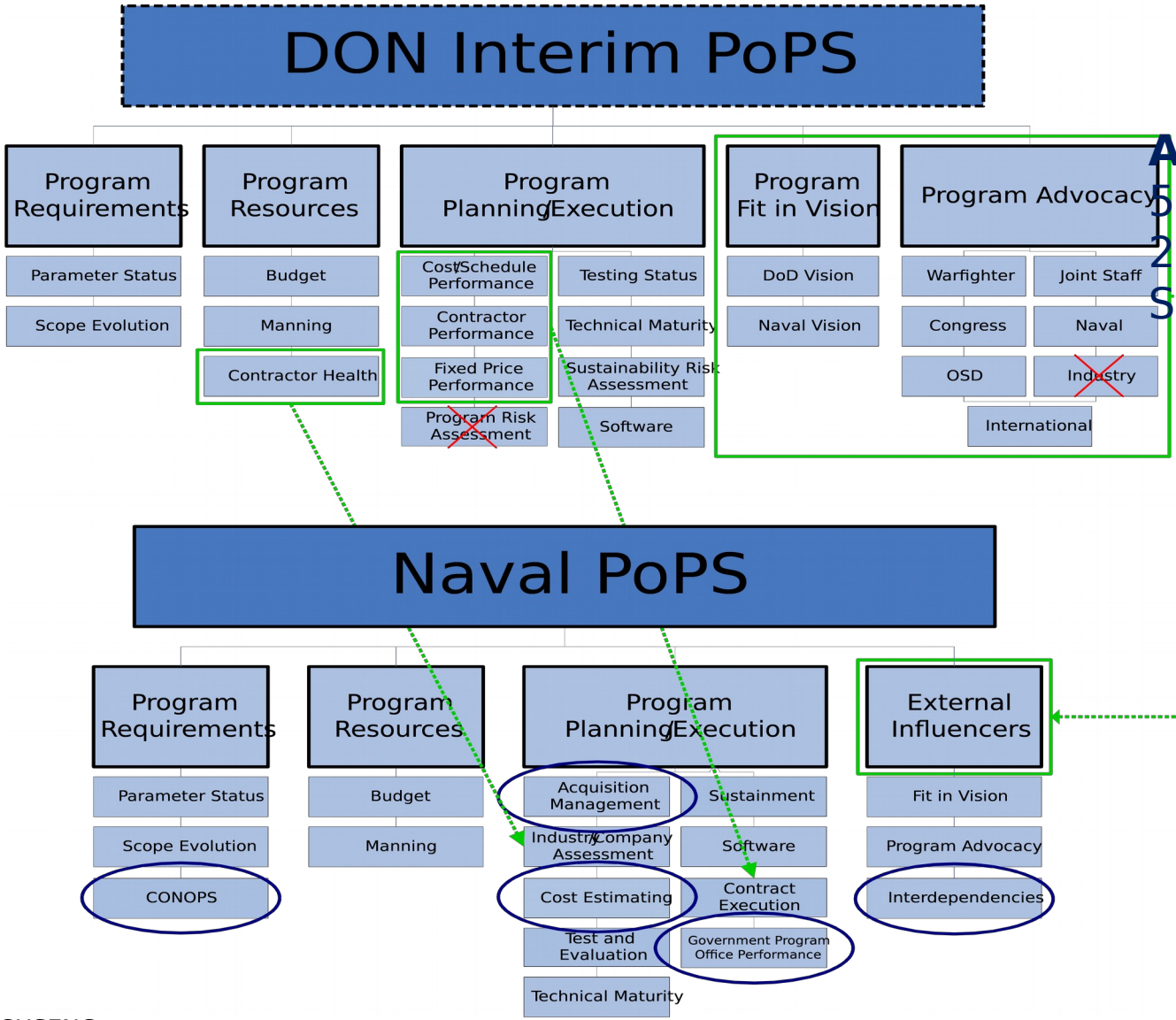


AF/ DON Interim PoPS
5 Factors
22 Metrics
Subjective Criteria

Naval PoPS v1.0
4 Factors
17 Metrics
More Objective Criteria

Relocated

Removed

Added

Framework Example

Gate 2

Program Planning/Execution

ACQUISITION MANAGEMENT

ACQUISITION MANAGEMENT: Status of program master schedule/Integrated Master Schedule (IMS), milestone documentation development, and progress toward defining derived requirements in the System Design Specification (SDS).

ACQUISITION MANAGEMENT CRITERIA

2.6.1 Program master schedule is current and includes all critical path activities. Key stakeholders have reviewed the master schedule and have determined that it is realistic and achievable based on planned activities.

G — Program master schedule is current and includes all critical path activities. Key stakeholders have reviewed the schedule and have determined that it is realistic and achievable based on planned activities.

Y — Program master schedule has been developed and reviewed by key stakeholders; required revisions are in work to ensure that the schedule is realistic, achievable, and includes all critical path activities.

R — Program master schedule has not been developed. –OR– Significant revisions are required but are not in work.

2.6.2 Milestone documentation[13] development is on or ahead of schedule. All required documentation will be signed within lead time necessary to meet Program Approval/Source Selection Decision Dates.

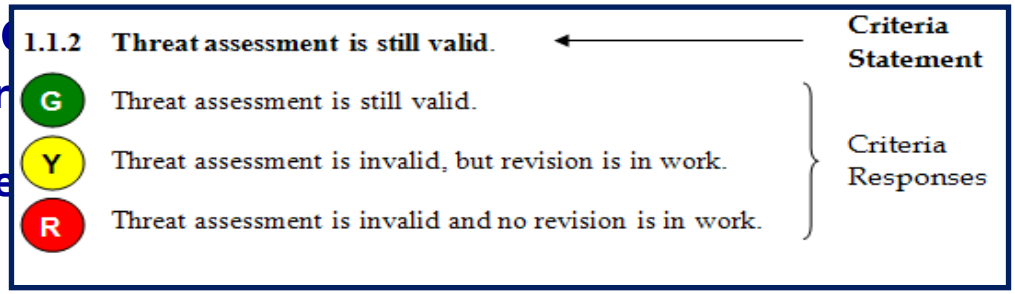
Factor

Metric

Criteria

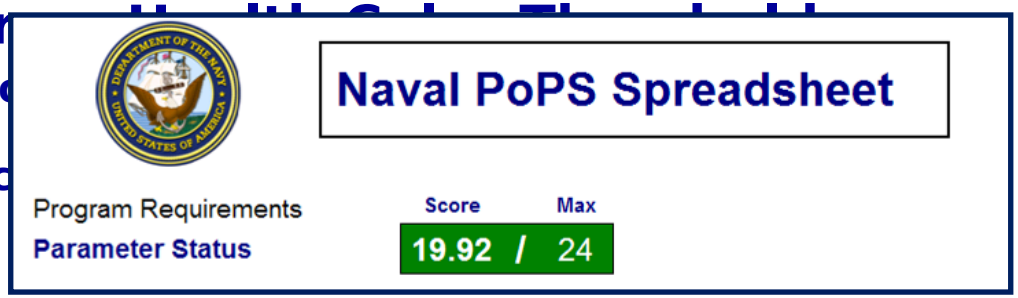
Naval PoPS v1.0 – R/Y/G Thresholds

- **Criteria Color Threshol**
  - **G** Green = 100% of max scor
  - **Y** Yellow = 66% of max score
  - **R** Red = 33% of max score


1.1.2 Threat assessment is still valid.
Criteria Statement
G Threat assessment is still valid.
Y Threat assessment is invalid, but revision is in work.
R Threat assessment is invalid and no revision is in work.
Criteria Responses

Example of Criteria Color Thresholds

- **Metric, Factor and Progr**
  - **G** Green = 80-100% of max sc
  - **Y** Yellow = 60-<80% of max sc
  - **R** Red = <60% of max score



Example of Green Threshold for "Parameter Status" Metric

Naval PoPS v1.0 Scoring Gate 2 Example

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Gate 2

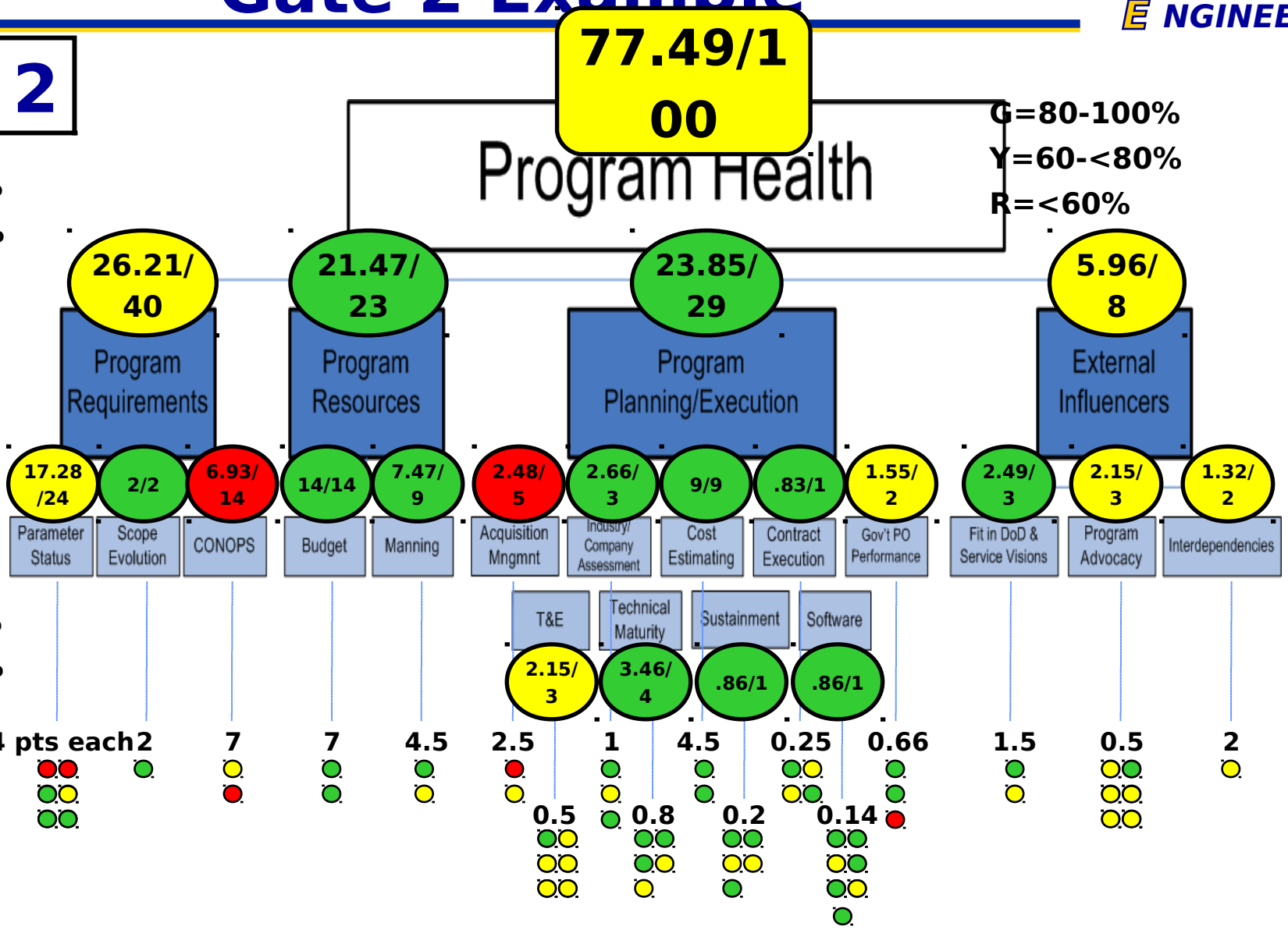
G=80-100%
Y=60-<80%
R=<60%

4 Factors

17 Metrics

G=80-100%
Y=60-<80%
R=<60%

Criteria
G = 100%
Y = 66%



Naval PoPS v1.0 Maximum Scores
Factor and Metric Level

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FACTORS	GATE 1	GATE 2	GATE 3	GATE 4	GATE 5	GATE 6			
						Post IBR	Post CDR	CPD	Pre FRP
Program Requirements	44	40	38	20	20	18	18	18	18
Program Resources	23	23	23	26	26	24	24	24	24
Program Planning/ Execution	14	29	34	50	50	54	54	54	54
External Influencers	19	8	5	4	4	4	4	4	4
Total Points Max	100	100	100	100	100	100	100	100	100

METRICS	GATE 1	GATE 2	GATE 3	GATE 4	GATE 5	GATE 6			
						Post IBR	Post CDR	CPD	Pre FRP
Parameter Status	26	24	20	15	15	15	15	15	15
Scope Evolution	0	2	4	4	4	2	2	2	2
CONOPS	18	14	14	1	1	1	1	1	1
Budget	14	14	14	17	17	15	15	15	15
Manning	9	9	9	9	9	9	9	9	9
Acquisition Management	0	5	7	12	8	5	5	5	5
Industry/ Company Assessment	0	3	3	3	3	5	5	5	5
Cost Estimating	5	9	9	11	9	4	4	4	4
Test and Evaluation	3	3	3	7	8	7	7	7	7
Technical Maturity	4	4	5	6	6	5	5	5	5
Sustainment	1	1	1	1	3	4	4	4	4
Software	1	1	1	2	3	4	4	4	4
Contract Execution	0	1	1	4	6	12	12	12	12
Gov't Program Office Performance	0	2	4	4	4	8	8	8	8
Fit in Vision	11	3	2	1	1	1	1	1	1
Program Advocacy	8	3	1	1	1	1	1	1	1
Interdependencies	0	2	2	2	2	2	2	2	2
Total Points Max	100	100	100	100	100	100	100	100	100

Naval PoPS v1.0 – "Killer Blow" Metrics

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A Killer Blow is interpreted as a negative situation exists for the program of such significance that it must be remedied. .

METRICS	GATE 1	GATE 2	GATE 3	GATE 4	GATE 5	GATE 6			
						Post IBR	Post CDR	CPD	Pre FRP
Parameter Status	▯	▯	▯	▯	▯	▯	▯	▯	▯
CONOPS	▯	▯	▯						
Budget	▯	▯	▯	▯	▯	▯	▯	▯	▯
Manning					▯				
Acquisition Management				▯					
Cost Estimating					▯				
Contract Execution						▯	▯	▯	▯
Total # of Potential Killer Blows per Gate	3	3	3	3	4*	3	3	3	3

*Gate 5 has four Killer Blow Metrics because the Manning and Cost Estimating Metrics' maximum scores are equal.

Naval PoPS v1.0 from Tool Gate 2 Review without "Killer Blows"

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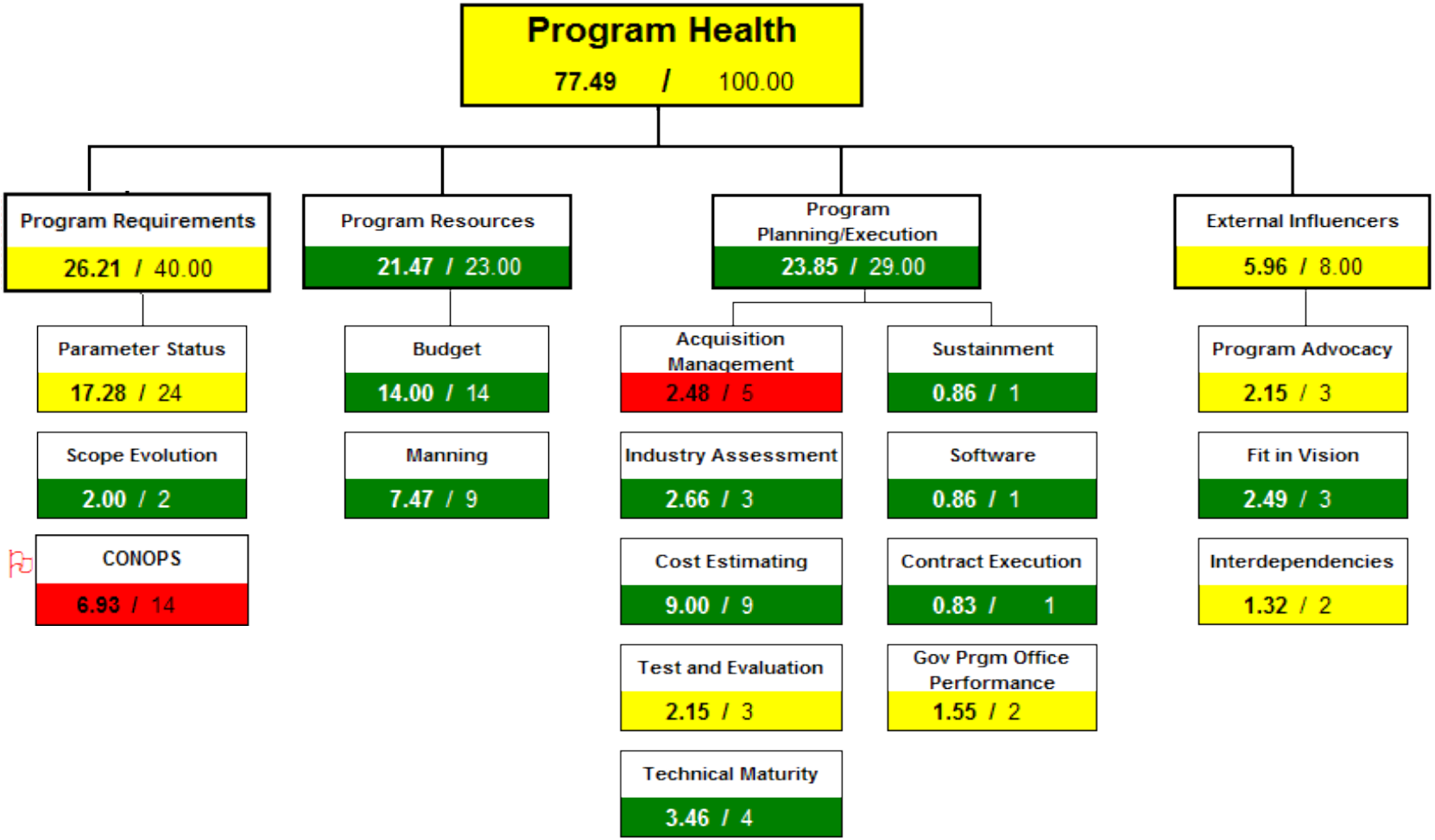

Naval PoPS v1.0 from Tool
Gate 2 Review with "Killer Blows"

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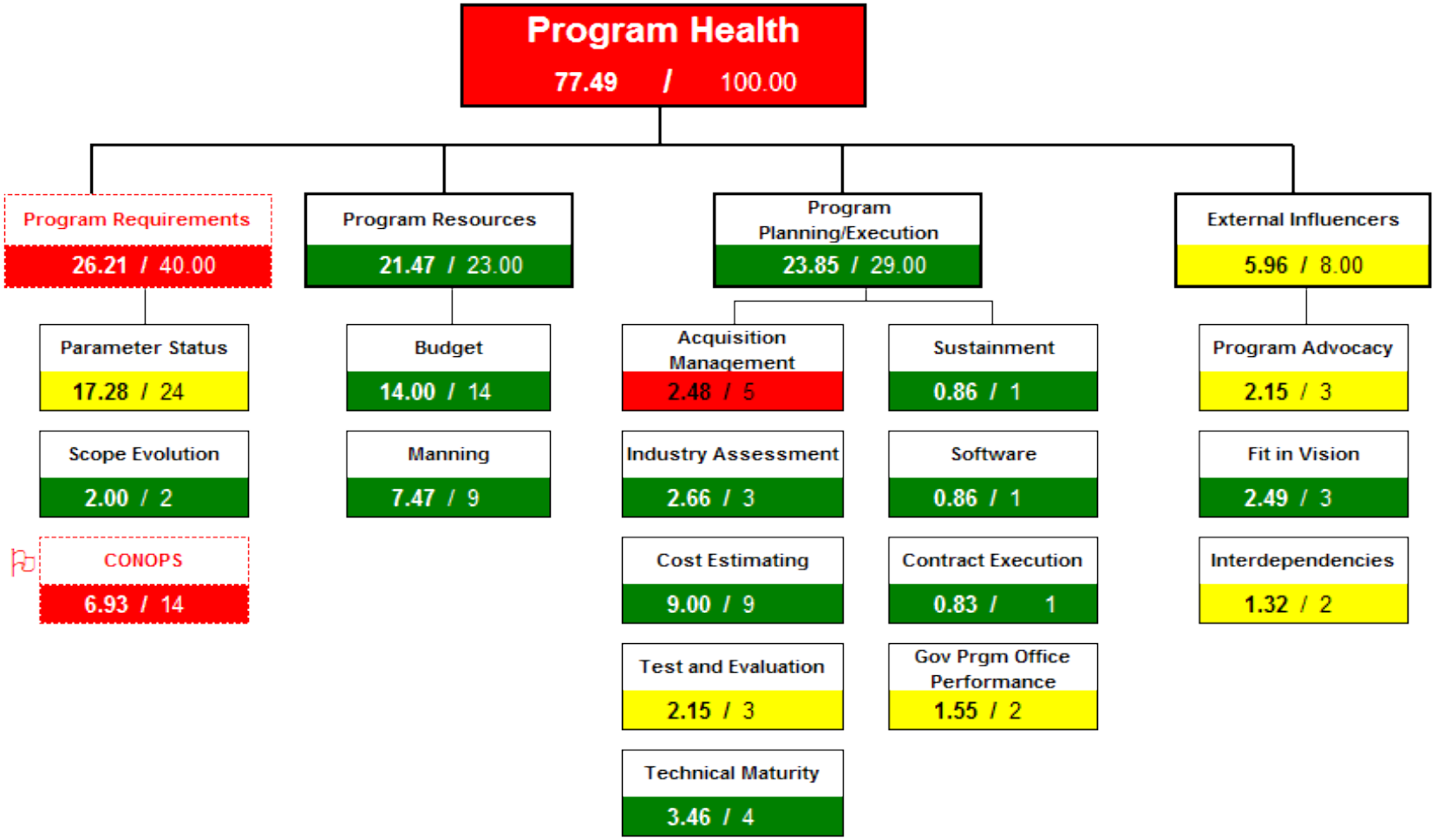

Naval PoPS v1.0 Products
Guidebook, Handbook, Visuals and Templates

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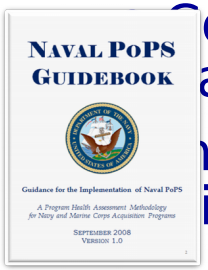
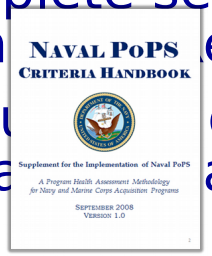
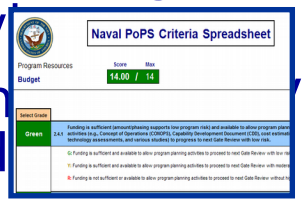
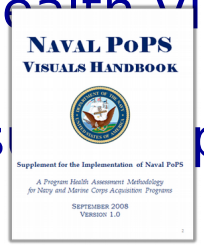
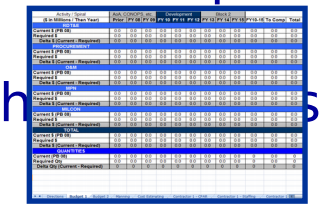
- **Naval PoPS Guidebook**
  - Overview information on Naval PoPS methodology and implementation
- **Naval PoPS Criteria Handbook and Spreadsheets**
  - Complete listing of Program Health Criteria per Gate, per Metric
  - Instructions on completing Program Health Assessments in Criteria Spreadsheets
- **Naval PoPS Visuals Handbook, Spreadsheets, and Templates**
  - Complete set of Program Health Visual Templates for each Gate review
  - Instructions on Visual Graphic Sizing
  - Visual Loading











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How DON is using Naval PoPS

- **Individual Program Reviews**
  - **Identify matters that affect Program Health**
- **PEO Portfolio Reviews**
  - **Health of all ACATS within a PEO**
- **Senior Leadership assistance**
- **Identify Systemic Issues**
  - **Action Item Tracking by PoPS Metrics**
  - **“Advocates” by PoPS Metrics**
    - **Establish action teams to address issues with Department**

‘Portfolio of Portfolios’ Approach

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PEO / Team Portfolio Health Assessment

Pre-Gate 6 Review

ACAT Programs

Program X2 (ACAT _)
Program Y2 (ACAT _)

PEO / Team Portfolio Health Assessment

Gate 6 Sufficiency Review

ACAT Programs

PEO / Team Portfolio Health Assessment

Post-Gate 6 Review

In-Service Programs

Program X3 (ACAT _)
Program Y3 (ACAT _)

Gate 6 Review	Gate 6 Review	Gate 6 Review	Gate 6 Review	Gate 6 Review
Sub-Portfolio	**Sub-Portfolio**	**Sub-Portfolio**	**Sub-Portfolio**	**Non-Active Programs Portfolio**
Program X (ACAT _) Program Y (ACAT _)	Program X1 (ACAT _) Program Y1 (ACAT _)	Program A (ACAT _) Program B (ACAT _) Program C (ACAT _)	Program A1 (ACAT _) Program B1 (ACAT _) Program C1 (ACAT _)	Program XX (ACAT _)_

Each program within a sub portfolio will complete a PoPS Gate 6 Program Health Assessment.

PEO / Team Overall Portfolio Health

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Gate 6 Sufficiency Portfolio Health	Sub- Portfolio A Program A1	Sub- Portfolio A Program A2	Sub- Portfolio A Program An	Sub- Portfolio B Program B1	Sub- Portfolio B Program Bn	Sub- Portfolio A Program An
Parameter Status	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00
Scope Evolution	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00
CONOPS	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00
Budget	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00	15.00 / 15.00
Manning	9.00 / 9.00	9.00 / 9.00	9.00 / 9.00	9.00 / 9.00	9.00 / 9.00	9.00 / 9.00
Acquisition Management	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00
Industry/Company Assessment	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00
Cost Estimating	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00
Test and Evaluation	7.00 / 7.00	7.00 / 7.00	7.00 / 7.00	7.00 / 7.00	7.00 / 7.00	7.00 / 7.00
Technical Maturity	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00	5.00 / 5.00
Sustainment	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00
Software	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00	4.00 / 4.00
ContractExecution	12.00 / 12.00	12.00 / 12.00	12.00 / 12.00	12.00 / 12.00	12.00 / 12.00	12.00 / 12.00
Govt Program Office Performance	8.00 / 8.00	8.00 / 8.00	8.00 / 8.00	8.00 / 8.00	8.00 / 8.00	8.00 / 8.00
Fit in Vision	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00
Program Advocacy	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00
Interdependencies	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00	2.00 / 2.00
Total Score	100.00 / 100.00	100.00 / 100.00	100.00 / 100.00	100.00 / 100.00	100.00 / 100.00	100.00 / 100.00

PoPS Other Uses

- **Establish action teams to address issues with Department implications**
  - **Mission**
  - **Industry / Company**
  - **Interdependencies**
  - **Manning**
- **Sufficiency**
  - **Budget / Cost Estimating / Life Cycle Costs**
  - **Sustainment**
- **“Advocates” by PoPS Metrics**

Systemic Issue Advocates

- Acquisition Management– Principal Civilian DASN (PCD)
- Manning – PCD
- Contract Execution DASN A&LM
- Industry / Company Assessment – DASN AIR and SHIPS/IWS)
- Sustainment – DASN A&LM
- Interdependencies – DASN C4I
- Budget – DASN M&B and EXW
- Cost Estimating – ASN
- Government – DASN C4I
- Program Advocacy – DASN C4I
- Scope Evolution – DASN M&B with Product DASNs
- Parameter Status – RDA CHSENG
- T&E – DON T&E Executive
- Technical Maturity – RDA CHSENG
- Naval POPS – RDA CHSENG
- NOTPOPS Other – RDA CHSENG

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Purpose of Gate Review Process Update

- **Incorporate lessons learned and emergent initiatives**
  - **Core and PoPS**
- **Align Gates - Core and PoPS to**
  - **DODI 5000.02**
    - **Tech Dev Strategy, SE Plan, T&E Strategy, RMA**
    - **TOC and Cost Estimating**
    - **Sustainment / Logistic Planning and Execution**
  - **Weapon System Acquisition Reform Act**
    - **Cost Estimating**
    - **Development Testing**
    - **System Engineering**
- **Address PoPS "sea of green"**

Gates to the New DODI 5000.02

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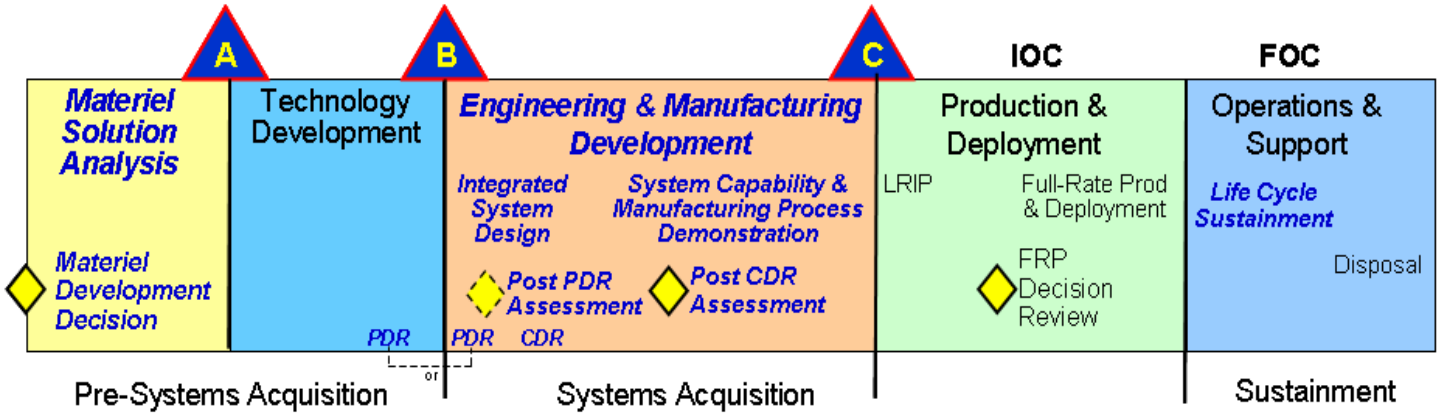
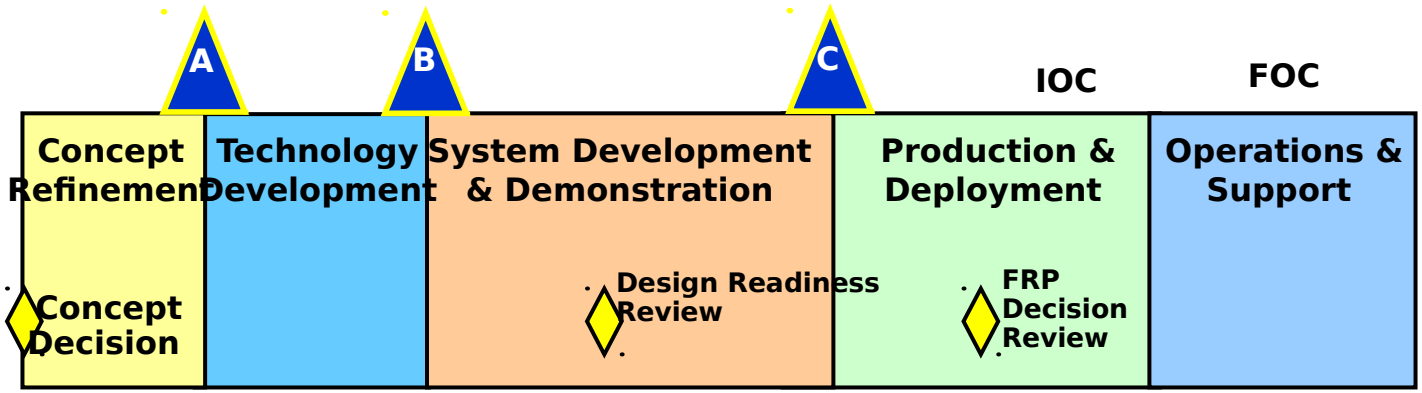
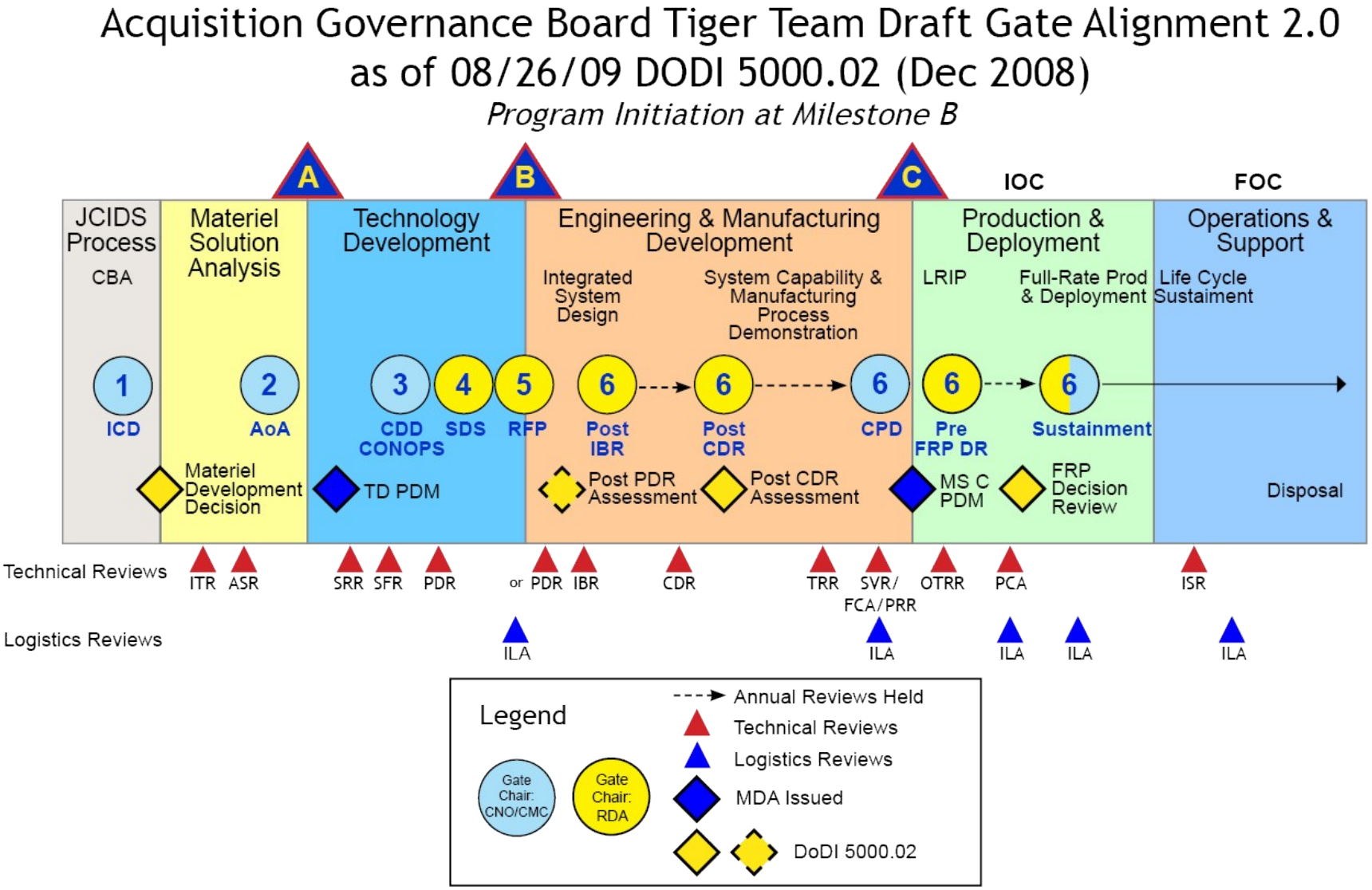
New DODI 5000.02 (Dec 2008)



Old DODI 5000.2 (May 2003)



Draft 2.0 Gate Alignment Initiation at MS B



Tiger Team Representatives

RDA CHIEF SYSTEMS ENGINEER

OPNAV Nils Anderson (N8), CAPT Sherman (N8), Rich Etheridge (N1), CAPT Ackart (N4), Edgar Bates (N6)

USMC Jim Ogershok (MCCDC), Doug Keeler (HQMC I&L)

SYSCOM Gail Goodman (SEA), Lola Scott (AIR), Bob Foster (SPAWAR), Paul Caussin (MCSC)

PEO/PMOs Earle Sheppard (Carrier), Geoff Tisone (AIR), John Metzger (C4I), Alex Gierber (Land)

Sustainment Charles Borsch (N4)

TOC Connie Bowling (N4)

Cost Estimating CAPT Barrata (NCCA)

Test & Evaluation (T&E) Steve Scrobo (RDA CHSENG)

Open Architecture Nick Guertin (PEO

Due Diligence

- **Adjudicated 1000+ comments to Core and PoPS Criteria and Templates**
- **Met with Acquisition Governance Executive Board Members**
  - **All supportive of changes**
  - **Concerns**
    - **Total Cost Estimating guidance**
    - **Cost Estimating capacity**
    - **Trust to get to the heart of**

Schedule

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Acquisition Governance Tiger Team

Gate Review Process Update Core & PoPS Established:

- **Alignment Sub-Group**
  - **Gate alignment to new DODI**
- **Functional Sub-Groups**
  - **Sustainment**
  - **Cost Estimating**
  - **TOC**
  - **T&E**
  - **Open Architecture**
  - **Tech Protect**

7 Apr

SYSCOM/PEO/HQMC/OPNAV Visits

- **Inform Alignment / Functional Areas / Emergent Initiatives**
- **Collect feedback and recommendations in Core and Program Health (PoPS)**

26 May

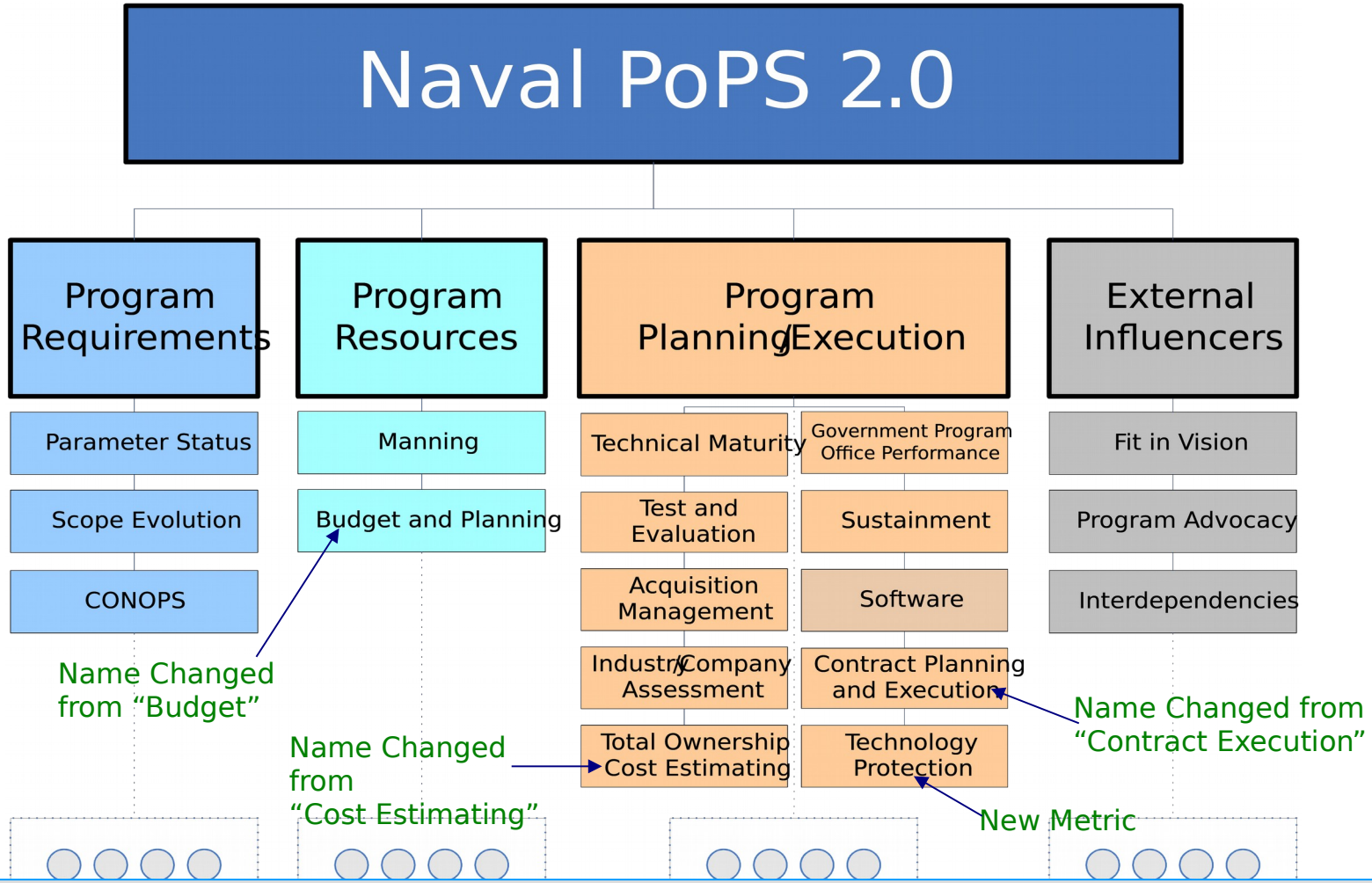
Tiger Team Adjudication of the collected recommendations (Core & PoPS)

18 Jun | **26 Jun** | **15 Jul** | **Aug** | **NOV 19**

Core	**Draft Content**	**Broad Base Review - Core Entrance / Exit / Briefing Content**	**Adjudication / Clean Up**	**Acquisition Governance Board**	**DON 5000 Update**	
	Draft Briefing Templates	**Broad Base Review - Core Briefing Templates**	**Adjudication / Clean Up**		**ACMC/ RDA Memo**	
PoPS	**Draft PoPS Criteria**	**Broad Base Review - PoPS Criteria**	**Adjudication / Clean Up**	**Acquisition Governance Board**	**VCNO/ ACMC/ RDA Memo**	
	Draft PoPS Templates	**Broad Base Review - PoPS Templates**				

NOV 19

Naval PoPS v2.0
Gates 1 – 6 Sufficiency (Pre FRP DR)



otional representation of Criteria. Criteria are Gate- and Metric-specific. The number of Criteria will var

Proposed PoPS v2 Scores
(Gate 6 Sustainment scores are preliminary draft)

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FACTORS	GATE 1 ICD	GATE 2 AoA	GATE 3 CDD/ CONOPS	GATE 4 SDS	GATE 5 RFP	GATE 6				
						Post IBR	Post CDR	CPD	Pre FRP DR	Sustainment
Program Requirements	31	35	36	22	14	13	13	12	12	8
Program Resources	17	17	17	20	20	16	15	14	14	17
Program Planning/ Execution	25	36	43	55	62	66	67	68	68	66
External Influencers	27	12	4	3	4	5	5	6	6	9
Total Points Max	100	100	100	100	100	100	100	100	100	100

METRICS	GATE 1 ICD	GATE 2 AoA	GATE 3 CDD/ CONOPS	GATE 4 SDS	GATE 5 RFP	GATE 6				
						Post IBR	Post CDR	CPD	Pre FRP DR	Sustainment
Parameter Status	24	19	17	14	9	9	9	9	9	8
Scope Evolution	0	5	8	6	4	3	3	2	2	N/A
CONOPS	7	11	11	2	1	1	1	1	1	N/A
Budget and Planning	13	13	13	14	14	10	9	9	9	10
Manning	4	4	4	6	6	6	6	5	5	7
Acquisition Management	N/A	3	6	9	9	7	6	6	6	N/A
Industry/ Company Assessment	N/A	4	3	3	3	3	2	2	2	N/A
Total Ownership Cost Estimating	10	10	10	14	14	10	9	8	8	9
Test and Evaluation	2	2	3	4	6	9	9	9	9	5
Technical Maturity	6	8	8	9	9	9	9	8	8	6
Sustainment	6	5	5	5	5	5	6	7	7	18
Software	N/A	N/A	N/A	3	3	5	7	7	7	6
Contract Planning and Execution	N/A	2	4	4	9	10	10	10	10	11
Government Program Office Performance	N/A	1	3	3	3	6	6	8	8	6
Technology Protection	1	1	1	1	1	2	3	3	3	5
Fit in Vision	8	5	1	1	1	1	1	1	1	N/A
Program Advocacy	13	6	2	1	1	1	1	1	1	N/A
Interdependencies	6	1	1	1	2	3	3	4	4	9
Total Points Max	100	100	100	100	100	100	100	100	100	100

Proposed Scoring Methodology

- **Refined Criteria statements and responses to reduce subjectivity and prevent misinterpretation**
- **Made Metric, Factor and Program color thresholds more stringent to address "sea of green" concern**
  - **Increased Green to ≥90% (vice ≥80%)**
  - **Redu**

	PoPS v1	*Proposed PoPS v2*
Metric, Factor, & Program	**≥80%**	**≥90%**
	≥60-<80%	**≥66-<90%**
	<60%	**<66%**
Criteria Scoring	**100%**	**100%**
	66%	**66%**
	33%	**30%**

C + C = M

1 Green Criteria + 1 Red Criteria = Yellow Metric

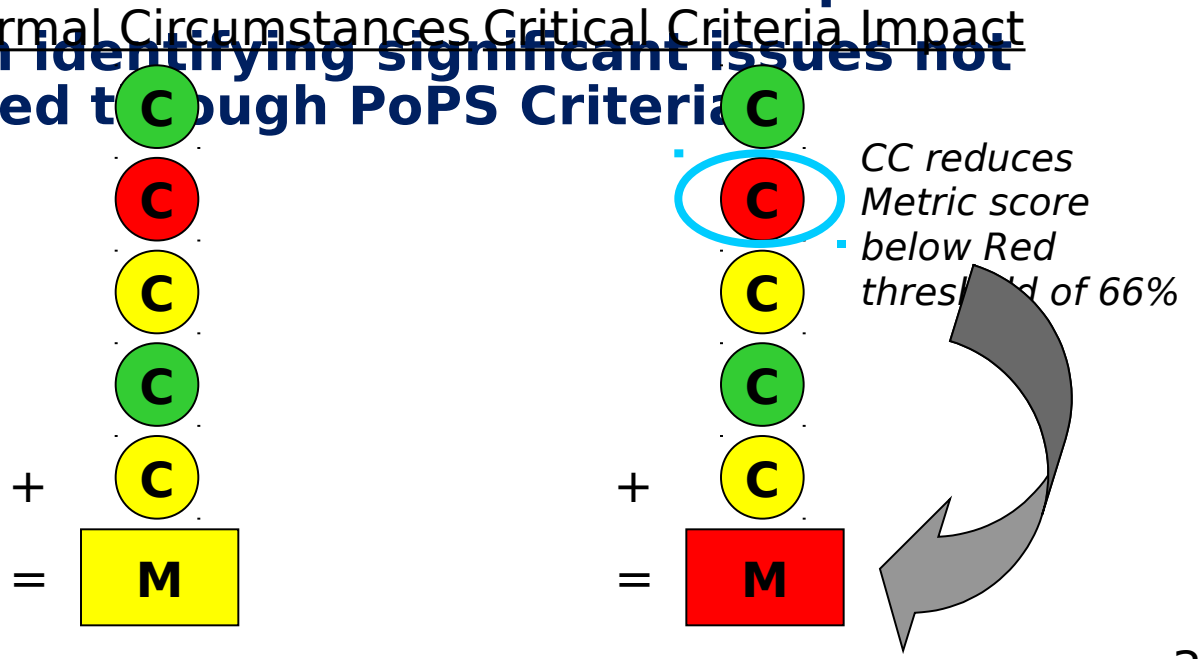
C + C = M

1 Green Criteria + 1 Red Criteria = Red Metric

Proposed Scoring Methodology

- **Replaced "Killer Blow" Metrics with Critical Criteria**
  - **Critical Criteria rated Red will automatically turn Metric to Red by reducing score below 66%**
    - **Does NOT automatically turn Factor and Program Red**
- **Allowed PEOs/PMs the ability to manually downgrade Program, Factor, and Metric colors to Yellow or Red after assessment is completed**
  - **Assist in identifying significant issues not addressed through PoPS Criteria**

Critical Criteria denoted by 'X'



Summary of Core Changes

- **Total Ownership Costs**
  - Affordability assessments earlier in program reviews
  - Address full breadth of costs, cost estimating practices and quality, and reduction efforts
- **Life Cycle Sustainment**
  - Operating and Support Strategy/Planning to reach expected service life
  - Developed new Sustainment Gate
  - Reinvigorate the ILA process
  - Inclusion of Sustainment Execution Reviews
  - Influences on Personnel, Training, Facilities, Maintenance
  - Inclusion of Logistic / Sustainment Reviews results
- **Operational Manpower Estimates**
  - Included Job Task Analysis, Training System Plan, Manning Documents
- **Program and Technical Baseline**
  - Earlier look at KPP / KSA feasibility
  - Emphasis on Tech Dev Strategies and System Engineering Planning / Execution
  - Inclusion of Technical Review results
- **T&E**
  - Increased emphasis on Development, Integrated, and Operational T&E planning and execution

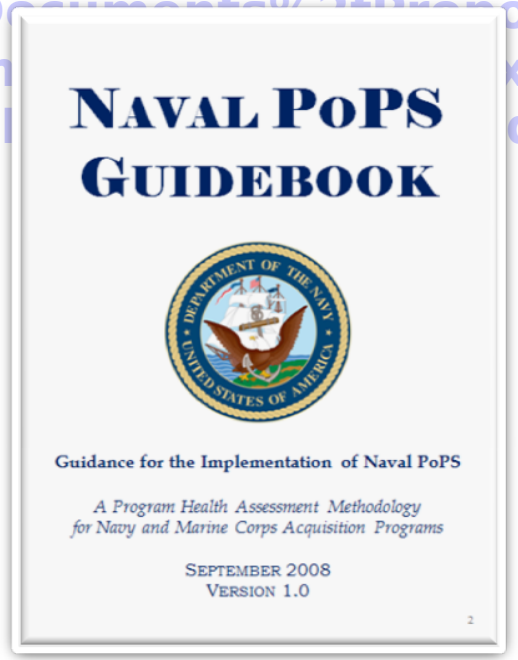
Summary of PoPS Changes

- **Ensured Consistency with Core**
  - Criteria and Templates
  - Adjusting Metrics for Gate 6 Sustainment
- **Deleted extraneous text to streamline criteria statements**
- **Added Technology Protection Metric**
  - Increased emphasis on safeguarding DoD research, technology information, and applied knowledge
- **Updated Software Metric for Gates 4 and higher; removed from Gates 1-3**
  - More relevant in later stages
- **Adjusted Metric, Factor and Overall color thresholds**
  - Green range is now $\geq$ 90% ($\geq$ 80% in v1)
  - Yellow range is now $\geq$ 66 $\leq$ 90% ($\geq$60-<80% in v1)
- **Utilize “Critical Criteria” versus “Killer Blow”**
  - For select Criteria, if Red will turn Metric Red
- **Allow PEO to manually downgrade Metric, Factor, and**

Proposed PoPS v2

Link to: Proposed PoPS v2 Criteria and Templates

https://nserc.navy.mil/asnrda/asn_rda_pops/pops20dev/Step%202%20Draft%20Documents/Forms/AllItems.aspx?RootFolder=%2fasnrda%2fasn%5frda%5fpops%2fpops20dev%2fStep%202%20Draft%20Documents%2fProposed%20PoPS%20v2%20Criteria%20and%20Tem...xec%20Staffing&FolderCTID=&View=%7b7AE...d4326%2d999E%2dDEEC9A1DF%7d


NAVAL POPS GUIDEBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
SEPTEMBER 2008
VERSION 1.0

Questions?

Framework Components

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- **Program Health:** The current state of an acquisition program's requirements, resources, planning and execution activities, and external influencers, and how those factors are impacting the program's ability to deliver a capability within specific constraints.

- **Factors:** These are Program Health organizational categories. The four Factors are: Program Requirements, Program Resources, Program Planning and Execution, and External Influencers.

- **Metrics:** Major sub-categories that collectively define the scope of a particular Factor. There are 18 Metrics in the Naval PoPS 2.0 Program Health framework. Metrics are the basic building blocks of Naval PoPS.

- **Criteria:** Parameters (qualitative and quantitative) used to evaluate a particular Metric. Each Criteria is

Factors

- **Program Requirements:** Capability requirements (defined in the Initial Capabilities Document [ICD]/Capability Development Document [CDD]/Capability Production Document [CPD]) that the program must meet within approved cost and schedule constraints.
- **Program Resources:** Funding and manning that is allocated to the program to accomplish planning and execution activities.
- **Program Planning/Execution:** Activities performed by the Program Office, contractors and government performers to fulfill program requirements.

Program Requirements Factor – Metrics

Parameter Status. Progress toward defining capability requirements [ICD, CDD, CPD] and meeting those requirements through the achievement of KPP/KSA/other attribute threshold values. Also measures requirements traceability and the validity of the threat assessment.

Scope Evolution. Stability of performance parameters/other attributes/quantities from the established baseline and the impact of changes on total program cost and schedule.

CONOPS. Progress toward developing

Program Resources Factor – Metrics

Budget and Planning. Sufficiency of funding (amount and phasing) across the FYDP based on last approved budget controls and degree of deviation from the current cost estimate. Also assesses cost drivers as a component of the TOC Strategy.

Manning. Stability and adequacy of Resource Sponsor and Program Office staffing (availability, skills, experience, certification and training).

Program Planning and Execution Factor – Metrics (slide 1 of 3)

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Acquisition Management. Completeness of program master schedule, status of milestone documentation development, and progress toward defining derived requirements in the System Design Specification (SDS).

Industry/Company Assessment. Gate 2 assesses market research activities, industrial base health, and an understanding of industrial implications for cost, schedule and technical risks. For major contracts (work performed by contractors only), Gate 3 onward assesses each company's financial health, financial systems, and manufacturing/production capabilities.

Total Ownership Cost Estimating. Measures the adequacy of the elements required to produce sound cost estimates: program description information, cost data, cost estimating process, cost estimate stability and comparisons, and cost estimate measures.

Test and Evaluation. Progress toward defining and executing the TES and TEMP. Ability to evaluate the system's technical and operational maturity and performance, adequacy of test resource requirements, status of identified technological risks, system deficiencies, and effectiveness, suitability, and survivability of the system under development.

Program Planning and Execution Factor – Metrics (slide 2 of 3)

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Technical Maturity. Assessment of the maturing system and sub-systems design. Assessment of the technical maturity of CTEs in accordance with the approved TDS. Evaluation of the supporting engineering processes, engineering documentation, and lessons learned to achieve an Operationally Effective and Suitable System.

Sustainment. Progress toward defining and executing the sustainment strategy, and the resource adequacy applied toward those life cycle sustainment activities. Sustainment is conducted as specified by an evolving Life Cycle Sustainment Plan (LCSP) and attachments. The Integrated Logistics Assessment (ILA) is the milestone focus, by which decision makers determine LCSP execution effectiveness and affordability.

Software. Software management and engineering (including translation and allocation of system capabilities to software, software code development, software-related risk management, etc.); applies to software activities by government agencies and/or contractors that are integral to program deliverables. Evaluated in terms of software size and stability, cost and schedule, organization, and quality.

Program Planning and Execution Factor – Metrics (slide 3 of 3)

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Contract Planning and Execution. Performance of major contractors and/or government performers as measured by Earned Value Management (EVM), Contractor Performance Assessment Reports (CPARs)/Informal Performance Assessment Reports (IPARs), staffing adequacy, and work package completion.

Government Program Office Performance. Progress toward defining and executing intra-government requirements; responsiveness to deliverable submissions; delivery of facilities, funding, GFE/GFI in accordance with scheduled requirements; Configuration Management/CCB and RMB effectiveness.

Technology Protection [proposed new Metric for v2]. Status and progress toward the safeguarding of DoD research, technology information, and applied knowledge associated with the program. Functional disciplines include threat assessments and intelligence/counterintelligence, Anti-Tamper, Supply Chain Risk Management, and physical and electronic security across government and Defense Industrial Base partners.

External Influencers Factor – Metrics

Fit in Vision. Program alignment with current documented Office of the Secretary of Defense (OSD) guidance and Navy/Marine Corps strategies.

Program Advocacy. Support demonstrated by key stakeholders: Congressional; OSD; DON/CNO/CMC; Joint Staff and COCOM; FFC/MARFOR; International Partners; Other Services (for Joint programs).

Interdependencies. Interface issues affecting inter-related programs; determines whether dependent programs are on track to deliver the